

receptacle entirely by *vacuum* (negative pressure) substantially throughout the system conduits. The effect of the vacuum extends from the ice source (e.g., an ice maker or ice supply bin) to the discharge end of a conduit at the target ice receptacle (e.g., an ice/beverage dispenser [IBD]).

The Examiner contends that Wade's system anticipates Applicants' system. That is incorrect. *Wade's system is not a vacuum system.* The Examiner (page 8, item 1, of the Office Action) identifies Wade's component 16 as "a vacuum pump." It is not. As Wade specifically states, component 16 is a "blower" (col. 2, line 63; col. 4, lines 17 and 39) driven by a "blower motor 43" (col. 4, line 16; col. 5, line 16). It is used to create a *positive* pressure (i.e., *overpressure*) in the duct 17. The air flow arrows in Figure 1 clearly show the air flow going out from the blower 16 through duct 17 to the various ice storage bins 12, 13 and 14. This is clearly a positive pressure system which *pushes* the ice cubes, not a negative pressure system which *pulls* the ice cubes. The only localized portion of Wade's system in which reduced pressure will exist is in the short delivery duct 19 leading from ice maker 11 to main duct 17, because of the venturi effect of the moving high pressure air stream in duct 17 as it passes over the exit of supply duct 19. It is apparent that as a practical matter, the length of supply duct 19 in Wade's system will be kept to a minimum by one skilled in the art.

The Examiner may be considering that the inlet side of blower 16 is connected to return duct 18, and that therefore a reduced pressure might exist in return duct 18. That is not disclosed nor taught by Wade, and there is no indication in Wade's disclosure about the pressure conditions in return duct 18, nor can any such conditions be deduced by one skilled in the art from Wade's disclosure. In any event no ice is conveyed in Wade's return duct 18, since all of the conveyed ice travelling through duct 17 is discharged from the duct 17 at bins 12, 13 and 14. Indeed Wade does not want any ice travelling through return duct 18. Since there are no ice traps or discharge ports in return duct 18, any ice entering return duct 18 will be carried back to the inlet of blower 16, where it will enter the blower and damage it. The pressure conditions in Wade's return duct 18 are therefore neither

known nor relevant to the comparison of Wade's system with Applicants', since no ice is conveyed in return duct 18.

In short, Wade's overpressure system is simply a typical example of the prior art non-vacuum systems. It contains no significant length of vacuum conveyance of ice.

In order to make clear the patentable distinction between Applicants' and Wade's, Applicants have amended Claims 1 and 126, the two independent claims in the application, to emphasize that the operating vacuum in Applicants' system extends substantially throughout the length of every conduit. No new matter is added by these amendments, since the amended wording is supported by the entire Specification.

In view of this most fundamental difference between Applicants' system and Wade's system -- vacuum operation as distinguished from overpressure operation -- the Wade reference cannot anticipate Applicants' claimed system under § 102(b).

For the same reasons, Claims 65, 97 and 151 cannot be obvious under § 103(a) over Wade in view of Pink et al. The Examiner cited Pink et al. as disclosing ice unbridging. However, adding Pink et al's ice unbridging device to Wade's overpressure conveyance system does not alter the fundamental overpressure operation nature of Wade's system. The combined references still teach nothing about a vacuum operated system, with or without included ice unbridgers. Consequently Claims 65, 97 and 151 are not obvious under § 103(a).

With respect to the § 112, ¶ 2, rejections, Applicants have amended Claim 105 to provide the antecedent basis called for by the Examiner. Claim 102 is also amended to correct a typographical error.

Applicants respectfully traverse the Examiner's rejection of Claim 164. The claim is not intended to be limited to any one or few "combinations" as implied by the Examiner. Rather it clearly indicates that the claimed system apparatus can link a number of ice sources with a number of terminal ice receptacles, and that to accomplish this there must be one or more division points in the main conduit, to allow for branching of the main conduit to or from the various ice supply sources and terminal ice receptacles. Thus, for

example, if there are two ice sources feeding into the main conduit, there must of course be a division point (e.g., a wye, a diverter, etc.) to allow ice to follow either route to or from the main conduit. It is submitted that this claim, since it covers whatever number of multiple possible ice conveyance routes that a user might desire in a system, does fully meet the requirement that it "particularly point out and distinctly claim" its subject matter. The Examiner has offered no valid reason why the mere fact that the claim has broad coverage should be considered to be a failure to "particularly point out and distinctly claim" such subject matter. It must be remembered that breadth per se does not make a claim indefinite.

REMAINING CLAIMS

Previously during prosecution the Examiner required Applicants to elect no more than fifteen claims of their 164 claims as filed for the purpose of examination. In response Applicants elected Claims 1, 11, 39, 59, 65, 72, 97, 102, 105, 126, 128, 138, 145, 151 and 164. In the subject Office Action the Examiner has withdrawn from consideration the remaining 149 claims. Applicants have established above that the elected claims -- including the only two independent claims in the case, Claims 1 and 126 -- are all allowable. It therefore follows that all 162 of the dependent claims are also allowable, *including those 149 non-elected claims* that the Examiner withdrew from consideration. Applicants therefore request that the Examiner cancel the withdrawal of the 149 non-elected claims, reinstate those claims as active claims, and allow those claims along with the allowable elected claims.

FEES

It is not believed that any fees are due with respect to the amendment of the claims herein, other than the extension of time fee mentioned above. However, should any additional fees be due, the Patent and Trademark Office is authorized to charge all such fees to Deposit Account No. 02-4070.

CONCLUSION

In view of the above amendments and remarks, it is respectfully submitted that all grounds of rejection and objection have been avoided and/or traversed. The Examiner is therefore respectfully requested to enter the amendments herein, reconsider and withdraw the rejections, reconsider and cancel the withdrawal of the non-elected claims, and allow Claims 1-164, as amended.

Should the Examiner believe that allowance of this application might be expedited by further discussion of the issues, a telephone call to the undersigned attorney, collect, at the telephone number listed below, is cordially invited.

Respectfully submitted,

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By: _____


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APPENDIX

IDENTIFICATION OF CLAIM AMENDMENTS

1. (Once Amended) Apparatus for conveying ice in the form of a plurality of pieces each having physical characteristics amenable to transport by negative air pressure pneumatic conveyance, from a source of said ice to a remote location under said negative air pressure, which comprises:

a hollow elongated ice conduit connecting said source of ice and said remote location and providing ice communication therebetween;

a receptor at said remote location for receiving said ice; and

a vacuum pump in fluid communication through a vacuum line with said receptor for withdrawing air from said conduit and creating a vacuum comprising said negative air pressure substantially throughout [in] said conduit, said negative air pressure causing said ice to traverse said conduit from said source into said receptor.

102. (Once Amended) Apparatus as in Claim 1 wherein said receptor at said remote location comprises an air lock device which is connected to said ice conduit on an upstream side and which has an inlet for pressurized air from a source thereof on a downstream side and another conduit extending from said downstream side for passage of said pressurized air, such that ice entering said air lock device from said ice conduit passes through said air lock device and is propelled through said another conduit at high velocity by said pressurized air.

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105. (Twice Amended) Apparatus as in Claim 102 wherein that portion of said another conduit downstream of said air lock comprises flexible tubing with an outlet at an end distal from said air lock device and further comprising [said] directing means for [comprises] manual, mechanical, pneumatic or electrical positioning of said outlet [end] of said flexible tubing.

126. (Once Amended) A process for conveying ice in the form of a plurality of pieces each having physical characteristics amenable to transport by negative air pressure pneumatic conveyance, from a source of said ice to a remote location under said negative air pressure, which comprises:

- a. providing a hollow elongated ice conduit connecting said source of ice and said remote location and providing ice communication therebetween; a receptor at said remote location for receiving said ice; and a vacuum pump in fluid communication through a vacuum line with said receptor for withdrawing air from said conduit and creating a vacuum comprising said negative air pressure substantially throughout [in] said conduit, said negative air pressure causing said ice to traverse said conduit from said source into said receptor;
- b. withdrawing air from said receptor and conduit and creating a vacuum comprising said negative air pressure in said receptor and conduit; and
- c. causing said ice to traverse said conduit from said source into said receptor under the influence of said negative air pressure.